

Amendments to the Claims:

11. (Twice Amended) A folding knife, comprising:
a handle defining a blade cavity and a first end;
a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity;
a longitudinally extending plunger carried in said blade cavity and having a first end and a second end wherein said second end is opposite said first end;
a pivoting sleeve provided in said handle, said sleeve receiving and longitudinally slidably carrying said first end of said plunger for longitudinal movement of said plunger relative to said sleeve as said blade moves between said retracted and extended positions; and
said second end of said plunger being pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended positions.

12. (New) A folding knife, comprising:
a handle defining a blade cavity and a first end;
a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity; and
a plunger assembly configured to maintain the blade in the extended position while the blade is in the extended position, and to retain the blade in the retracted position while the blade is in the retracted position, the plunger assembly having:

a first end slidably and pivotably connected to said handle for longitudinal and/or pivotal movement of said plunger assembly relative to said handle as said blade moves between said retracted and extended positions; and

a second end opposite said first end, said second end of said plunger assembly pivotally connected to said first end of said blade for orbital movement about said blade pivot as said blade moves between said retracted and extended positions.

13. (New) A knife as defined in claim 12, wherein said blade includes said first end of said blade having an extension projecting outwardly from said handle when said blade is in said retracted position; said extension defining an extreme edge portion with a plurality of ridges thereon for contact by a user when moving the blade from said retracted position to said extended position.

14. (New) A knife as defined in claim 12, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger assembly when said safety member is in said locking position for contacting and restraining movement of said plunger assembly when said blade is in said extended position, to thereby lock said blade in said extended position.

15. (New) A knife as defined in claim 12, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger assembly for contacting said plunger.

16. (New) A knife as defined in claim 12, further comprising said handle defining a first side and a second side opposite said first side and a belt clip connected to said handle adjacent one of said first and second sides of said handle.

17. (New) A knife as defined in claim 12, wherein said second end of said plunger assembly includes a clevis having a pin pivotally connected to said first end of said blade.

18. (New) A knife as defined in claim 12, wherein said first end of said blade includes an arcuate slot and wherein said handle includes a pin carried in said arcuate slot, said arcuate slot having a first end and a second end, and said first end of said arcuate slot limiting said blade from movement beyond said extended position.

19. (New) A knife as defined in claim 12 wherein the plunger assembly comprises a plunger and a spring operatively interconnecting said plunger to said handle.

20. (New) A knife as defined in claim 19, wherein the spring exerts a pivoting force upon the blade in response to the spring being deformed, the spring being maximally deformed when the blade is pivoted to an intermediate point between the extended position and retracted position, thereby causing the spring to assist opening of the blade when the blade is pivoted from the retracted position toward the extended position beyond the intermediate point.

21. (New) A knife as defined in claim 12 wherein the plunger assembly comprises a plunger and a coil spring operatively interconnecting said plunger to said handle.

22. (New) A knife as defined in claim 21, wherein the coil spring encircles said plunger.

23. (New) A folding knife, comprising:
a handle defining a blade cavity and a first end;
a blade having a first end and a second end opposite said first end; said first end of said blade having a blade pivot connected to said first end of said handle for pivotal

movement of said blade about said blade pivot between an extended position wherein the blade is outside of said blade cavity and a retracted position wherein the blade is substantially within said blade cavity; and

a plunger including a spring, the plunger pivotally connected to the blade at a first end, and operatively coupled to the handle at a second end, the spring being maximally deformed when the blade is pivoted to an intermediate point between the extended position and retracted position, thereby causing the spring to assist opening of the blade when the blade is pivoted from the retracted position toward the extended position beyond the intermediate point.

24. (New) A knife as defined in claim 23, wherein said blade includes said first end of said blade having an extension projecting outwardly from said handle when said blade is in said retracted position; said extension defining an extreme edge portion with a plurality of ridges thereon for contact by a user when moving the blade from said retracted position to said extended position.

25. (New) A knife as defined in claim 23, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into a path of movement of said plunger when said safety member is in said locking position for contacting and restraining movement of said plunger when said blade is in said extended position, to thereby lock said blade in said extended position.

26. (New) A knife as defined in claim 23, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

27. (New) A knife as defined in claim 23, further comprising said handle defining a first side and a second side opposite said first side and a belt clip connected to said handle adjacent one of said first and second sides of said handle.

28. (New) A knife as defined in claim 23, wherein the first end of said plunger includes a clevis having a pin pivotally connected to said first end of said blade.

29. (New) A knife as defined in claim 23, wherein said first end of said blade includes an arcuate slot and wherein said handle includes a pin carried in said arcuate slot, said arcuate slot having a first end and a second end, and said first end of said arcuate slot limiting said blade from movement beyond said extended position.

30. (New) A folding knife comprising:
a handle;
a blade pivoted on said handle via a blade pivot for movement between stowed and deployed conditions relative to the handle; and

a plunger including an elongate, force-transmitting biasing spring, where the plunger is operatively coupled with the blade for orbital movement of a portion of the plunger about the blade pivot, and the spring is operatively interposed between said handle and said blade, where said spring exhibits both a rise and a fall in the biasing force carried through the spring when the blade is moved from one of the stowed condition and the deployed condition to the other of the stowed condition and the deployed condition.

31. (New) The knife of claim 30, wherein the mentioned rise and fall in biasing force occur such that the rise in the biasing force occurs before the fall in the biasing force.

32. (Cancelled)

33. (New) A folding knife comprising:
a handle;
a blade pivoted on said handle for movement between stowed and deployed conditions relative to the handle;
an elongate, force-transmitting biasing spring operatively interposed between said handle and said blade, said spring, with movement of said blade generally from either one of such two conditions toward the other condition, exhibiting both a rise and a fall in the biasing force carried through the spring;
a plunger operatively interconnecting the spring to the blade; and
a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

34. (New) A folding knife comprising:
a handle;
a blade pivoted on said handle for movement between stowed and deployed conditions relative to the handle; and
an elongate, force-transmitting biasing spring having an effective length, the spring operatively attached between said blade and said handle, where said spring exhibits both an increase and a decrease in the effective length of the spring, as said blade is moved generally from one of the stowed condition and the deployed condition toward the other condition, wherein the spring exhibits the decrease in effective length, as said blade is moved from one of the stowed and the deployed conditions toward an intermediate point between the stowed and the deployed conditions, followed by the increase in effective length, as said blade is moved from the intermediate point toward the other condition.

35. (Cancelled)

36. (New) The knife of claim 34 wherein the operative attachment of said spring to said blade comprises a plunger operatively interconnecting the spring to the blade.

37. (New) A knife as defined in claim 36, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

38-44. (Cancelled)

45. (New) A knife comprising:
a handle;
a blade pivotally held in the handle to move about a blade pivot point, such that the blade moves between a stowed position and a deployed position; and
a plunger including a spring, coupled between the handle and the blade such that a portion of the plunger remains a fixed distance from the blade pivot point, and where the spring operates on the blade to maintain the blade in the stowed position when the blade is moved to the stowed position, and operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position.

46. (Cancelled)

47. (New) A knife comprising:
a handle;
a blade pivotally held in the handle to move between a stowed position and a deployed position;
a spring operatively interconnecting the blade to the handle, wherein the spring operates on the blade to maintain the blade in the stowed position when the blade is moved to the

stowed position, and operates on the blade to urge the blade toward the deployed position when the blade is moved by an outside force from the stowed position at least partially toward the deployed position;

a plunger operatively interconnecting the spring to the blade; and
a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

48. (New) A knife comprising:
a handle;
a spring movably held in the handle; and
a blade pivotally held in the handle by a pin, the blade pivotal between a stowed position and a deployed position,

wherein the spring is operatively connected to the blade at a point that moves with the blade as the blade moves from the stowed position to the deployed position, and wherein the spring is operatively connected to the blade to exert a directional force on the blade that is at least approximately in line with the pin when the blade is in at least one position as it moves from the stowed toward the deployed position, but while the blade is closer to the stowed position than to the deployed position.

49. (New) The knife of claim 48, further comprising a plunger operatively interconnecting the spring to the blade.

50. (New) A knife as defined in claim 49, further comprising a safety member connected to said handle for movement between a locking position and an unlocking position; said safety member defining an engagement portion projecting into the path of movement of said plunger for contacting said plunger.

51. (New) A knife as defined in claim 34, wherein the operative attachment of said spring to said handle comprises a pivotal connection between said spring and said handle.

52. (New) A folding knife comprising:
a handle;
a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, between a retracted position and an extended position;
biasing means for holding the blade in the retracted position in the handle while the blade is in the retracted position and for biasing the blade toward the extended position relative to the handle when the blade is moved from the retracted position past a point of maximum bias toward the extended position; and
moving means for moving the blade from the retracted position to the extended position with one hand while holding the knife with the one hand.

53. (New) The folding knife of claim 52 wherein the biasing means comprises:
a plunger having a first end operatively coupled to the blade; and
a pivotal connector coupled to the handle and to which a second end of the plunger is slideably coupled.

54. (New) The folding knife of claim 52 wherein the moving means comprises at least one of a plurality of ridges formed on the tang of the blade, a plurality of directional saw-like teeth formed on the tang of the blade, or a pin coupled to an upper portion of the blade.

55. (New) A folding knife comprising:
a handle;
a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position;

a single biasing element for applying a rotating bias to the blade, the biasing element including a spring;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade, the biasing element arranged such that the spring thereof increases in tension to a point of maximum tension as the blade is moved through the arc from the retracted position toward the extended position, then decreases in tension as the blade continues past the point of maximum tension toward the extended position.

56. (New) The knife of claim 55 wherein the single biasing element lies in a plane defined by the arc of the blade.

57. (New) The knife of claim 55, further comprising an engagement element for engagement by a finger of a user's hand to move the blade from the retracted position toward the extended position while the knife is held in the user's hand.

58. (New) A folding knife comprising:

a handle;

a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position when an opening force is applied to the blade;

a contact element on the blade, positioned such that a user, holding the knife in one hand, can apply opening force to the blade with a finger of the same hand;

a biasing element including a spring;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade.

59. (New) The knife of claim 58 wherein the biasing element is arranged such that the spring thereof increases in tension to a point of maximum tension as the blade is moved through the arc from the retracted position toward the extended position, then decreases in tension as the blade continues past the point of maximum tension toward the extended position.

60. (New) The knife of claim 58 wherein the contact element comprises at least one of a plurality of ridges formed on the tang of the blade, a plurality of directional saw-like teeth formed on the tang of the blade, or a pin coupled to an upper portion of the blade.

61. (New) The knife of claim 58 wherein the contact element comprises a feature formed on the tang of the blade.

62. (New) A folding knife comprising:
a handle;
a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position when an opening force is applied to the blade;
a contact element on the blade, positioned such that a user, holding the knife in one hand, can apply opening force to the blade with a finger of the same hand;
a biasing element including a spring, configured to apply a closing force to the blade while the blade is in the retracted position;
a first coupling element operatively coupling a first end of the biasing element to the handle; and
a second coupling element operatively coupling a second end of the biasing element to the blade.

63. (New) A folding knife comprising:

a handle;

a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position when an opening force is applied to the blade;

a contact element on the blade, positioned such that a user, holding the knife in one hand, can apply opening force to the blade with a finger of the same hand;

a biasing element including a spring, configured to resist rotation of the blade toward the extended position while the blade is in the retracted position;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade.

64. (New) A folding knife comprising:

a handle;

a blade having a tang end coupled to the handle, the blade configured to rotate, relative to the handle, through an arc between a retracted position and an extended position when an opening force is applied to the blade;

a contact element on the blade, positioned such that a user, holding the knife in one hand, can apply opening force to the blade with a finger of the same hand;

a biasing element including a spring, configured to apply no opening force to the blade while the blade is in the retracted position;

a first coupling element operatively coupling a first end of the biasing element to the handle; and

a second coupling element operatively coupling a second end of the biasing element to the blade.